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THE FIRST SCIENTIST
OF THE
MISSISSIPPI VALLEY

RECAP

A MEMOIR
OF
THE LIFE AND WORK OF
DOCTOR ANTOINE FRANÇOIS SAUGRAIN

BY
WILLIAM VINCENT BYARS



BENJ. VON PHUL, PUBLISHER
ST. LOUIS

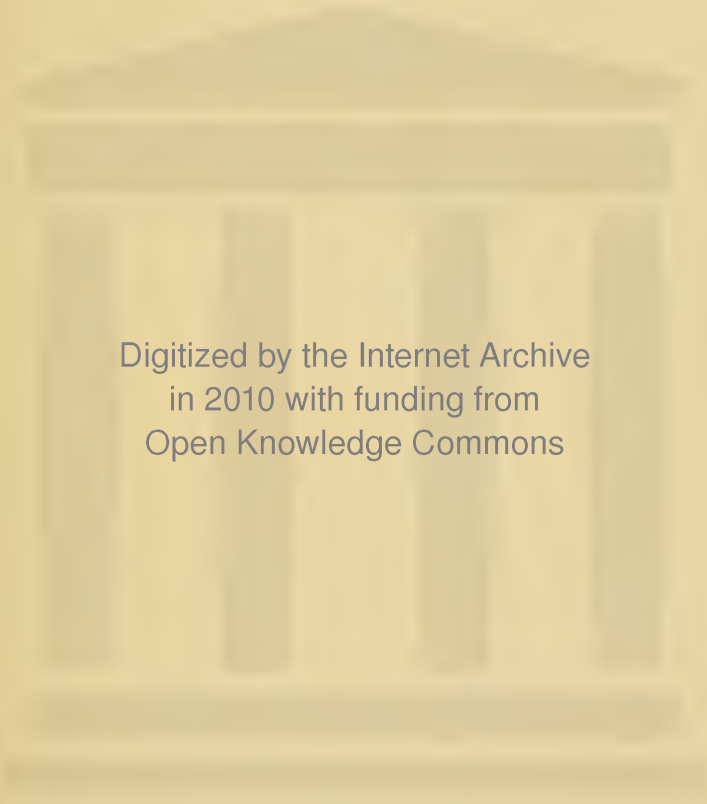
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THE FIRST SCIENTIST
OF THE
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De par le Roy

A tous Gouverneurs et nos Lieutenans
Généraux en nos Provinces et Armées, Gouverneurs
particuliers et Commandans de nos Villars, Places
et Troupes, et à tous autres nos Officiers, Justiciers et
Syndes qu'il appartiendra, Salut Nous voulons et
vous mandons par ces présentes que vous ayez à laisser
librement passer les Français, allant sans l'Amérique
potentielle avec un domestique

et sans lui donner ni souffrir qu'il lui soit donné aucun
empêchement, le premier passeport valable pour un voyage
seulement. Car tel est notre plaisir
Donné à Paris le 27. avril 1790.

Par le Roy

J. L. de Martigny



Gratis

[REDUCED FACSIMILE OF DOCTOR SAUGRAIN'S PASSPORT OF 1790.]

C. P. J. F. Barry
1790

THE FIRST SCIENTIST OF THE MISSISSIPPI VALLEY.

What now would be called "the scientific spirit" came to St. Louis and Upper Louisiana with the beginning of the Nineteenth Century, when Doctor Antoine François Saugrain became "post-physician" under the Spanish Lieutenant-Governor, Don Carlos Dehault Delassus. Reappointed by President Jefferson in June, 1805, to this position of some honor but small profit, Doctor Saugrain, until his death in 1820, continued in St. Louis, what he himself called his "work in the dark" in scientific experiment, conducted under the great difficulties incident to the practice of his profession as a physician in a pioneer settlement in the wilderness.

In his own generation, when science was not specialized as it is now, he might have been called "the first philosopher of the Mississippi Valley," and there would have been no one to contest the claim. Don Juan d'Ulloa, who came to New Orleans as Governor of Louisiana in 1765, owed his appointment more to the regard in which "philosophy" was beginning to be held in Spain than to his talents as an administrator. He was the most noted philosopher of Spain in his generation, but the revolt of the French element, under Lafreniere, forced his recall from Louisiana too quickly to allow his name to become identified with the Mississippi Valley, except as it figures in a painful chapter of political history. It was only when Doctor Saugrain removed his chemical apparatus to St. Louis that the country west of the Mississippi acquired a resident representative of the spirit, already developed in the Eighteenth Century, which was to revolutionize the Nineteenth, with promises of still greater changes at the beginning of the Twentieth.

While the records of his work, in what was then an isolated frontier village, are preserved only in fragments or by tradition, these, though they demonstrate no immediate results, identify his spirit fully with that which now makes it possible to judge by the most far-reaching results



DR. ANTOINE FRANÇOIS SAUGRAIN.

[From an oil portrait, painted from life.]

the importance of efforts and aspirations, identifying him with the atmosphere in which Franklin and Lavoisier lived and worked.

Before it is possible to realize the difference between the intellectual conditions of the Eighteenth Century and those of our own, it must be recalled that alchemy, the mysticism which belonged to the magic and the astrology of the Middle Ages, controlled the thought even of the most advanced "chemical philosophers," until in Paris, where Saugrain was then a boy of nine years, Lavoisier announced the discovery, supplementing that of Franklin, which resulted in the death of alchemy and the appearance of the almost fully-grown working theory of modern chemistry. The excitement immediately produced was so great that Lavoisier was burned in effigy in Berlin by the learned adherents of the theory of the Middle Ages as it had been modified in the attempt to account for merely accidental discoveries. The excitement increased among men of intellect when it was found that those who accepted Lavoisier's results accepted with them a method which, instead of leaving discoveries to chance, made it possible to work towards them and secure them intelligently. The history of the human intellect shows no greater revelation of the meaning of physical life and its possibilities than came with the announcement that oxygen gas is everywhere present with an always present tendency to combine with, to change, to energize organic life and at the same time to enter into all the most important processes of change in inorganic. The possibilities of this knowledge, vaguely presenting themselves to Doctor Priestley, and at once seized on in fundamental principle by Lavoisier, were only slowly realized, but they had an immediate, sensational influence in forcing either the sudden abandonment of older theories or else a determined attempt to use them to overpower and silence the representatives of the future.

It was in the intellectual atmosphere thus produced, with the possibilities of a new science revealed and only partly comprehended, that Saugrain, as a student in Paris, received the impulses he illustrated by his work in St. Louis. The enthusiasm inspired by Lavoisier's discovery for what was then called "philosophy," was so great, and so soon to be overcome, except in the strongest minds, by the excitement of the French revolution, that it is only with difficulty we can now enter into it at all or realize how high were the hopes inspired by it.

As is often the case, the element of mysticism, seemingly expelled by larger knowledge, increased as a result of it.

The only event of the Eighteenth Century which equals in importance to the present the discoveries of Lavoisier, was the experiment which

enabled Franklin to announce the universal operation of electricity in nature. At first, he was sneered at as an ignorant and pretentious provincial. His discoveries were contemptuously ignored by the learned societies of England, but he found a champion in France for his "philosophy" in the "philosopher" Buffon, who, at a time philosophy covered natural history as well as chemistry and all other sciences, felt it to be not only a right but a duty to reinforce the unknown American with the weight of his authority. In 1752, when by his celebrated



THE NINI PORTRAIT OF FRANKLIN.

[Photographed from the Original Terra Cotta Medallion of 1777, presented by Franklin to Doctor Saugrain, now in possession of his son, Frederick Saugrain, Esq., of Sedalia, Mo.]

experiment with the kite, Franklin demonstrated his theory, the world of mind in France and Continental Europe was profoundly stirred, and, as experiments made almost simultaneously with his, left no possibility of challenging his assertion longer, he took rank at once in France as one of the greatest of all philosophers.

As demonstrated results from his discovery increased, the learned in England were reluctantly compelled to claim him as a British subject, and in 1767, Oxford University offered him its unwilling honors, followed in 1775 by the further British recognition of the Copley gold medal.

The demonstration made by Franklin in 1752, eleven years before the birth of Saugrain, was followed in 1786 to 1794 by the experiments of Galvani, which, though in themselves strictly scientific, gave new life to the mysticism of the Middle Ages. For the time, at least, the discovery of Galvani appeared to be far greater than that made by Franklin or by anyone else up to that time. It seemed to connect electricity with the principle of life itself and to promise thus to realize the hopes which had inspired the alchemy of the Middle Ages in its long search for the elixir vitæ. The convulsions of a lately-killed frog, under Galvani's currents, at once suggested attempts to restore the dead to life by the use of electric batteries, and the possibilities of "animal magnetism" impressed themselves on the minds of the partly educated as involving a revelation of the whole mystery of life and death.

In Paris, where everything that is genuine is welcomed with an enthusiasm only exceeded by that excited when the imagination is allowed its freest possible play, what is now called science as it was then called philosophy, exerted an influence over the minds of all educated people so great that for a time even politics were dwarfed. The two genuine discoveries which had been made, that of electricity and oxygen gas, as universal forces in the economy of the earth, were too great to be appreciated in their possibilities then, as they still are, but the hopes they inspired in the minds of those most nearly able to understand, were disseminated universally, and when the motto, "*Novus Ordo Sæclorum*," was engraved on the great seal of the United States, its inspiration was the hope present, not only in America, but throughout Europe, that a "new order of the ages" had actually begun in which all that was worst in the old would soon be eradicated.

In science and by the reflex influence of science, in politics also, it was the world's age of highest hope since the first centuries of the Christian era.

Naturally, in politics as in "philosophy," the hopes of the unknown turned to America, which directly or indirectly determined European politics during the whole of the Eighteenth Century. The struggle between England and the Latin countries, represented by France and Spain, for possession of North America, went on during the first half of the century, and when, after the revolt of the English colonies, Franklin

went to Paris as the representative of American hopes, he found them not different from the hopes of the coming generation of France. At a time when to be a philosopher was to be a searcher into the reasons for the existence of everything, including political and religious systems, he was welcomed as an ambassador from the future.

According to an unsubstantiated tradition, it was directly from Franklin, that Saugrain, then a lad in his teens studying in Paris, received the impulse which determined his career and sent him on his first expedition to America. As he belonged to the circle in which Franklin moved, it is easily credible that there may have been such a meeting between them, but it is also true that the Saugrain family and its connection of that period were under the same influences which controlled Franklin, so that it is not necessary to assume the direct meeting with Franklin at this time to account for the fact that immediately after the conclusion of his studies in Paris, and in pursuance of them, Saugrain made his first visit to America.

The connection of the Saugrains of this period with the intellectual life of Paris is indicated by the marriage of its female members, one of whom, Theresa Angelique, became the wife of Henry Didot, a member of the celebrated house of booksellers and publishers, whose editions of the classics represent the nearest modern approach to the Aldine; another, Marie Louise, married Doctor Joseph Ignace Guillotin, immortalized in undeserved odium because his experiments in attempting to find a painless means of death for criminals condemned for capital crimes, resulted in the use of the "guillotine." Still another daughter of the family became the wife of Antoine Charles Horace Vernet, one of a family of famous painters. The Saugrains themselves had been identified for successive generations with the intellectual life of France as librarians, publishers and booksellers. John Saugrain, who removed from Lyons to Paris, was printer to the king under letters patent issued by Charles IX, dated June 10, 1568. He was also a royal bookseller under Henry IV, of Navarre. He died childless, and the family tradition in Paris was maintained by his brother Abraham Saugrain and his descendants, who held much the same relations to the Paris of their day, occupied after them by their family connections, the Didots. Claude Marin Saugrain (born 1735; married to Catherine Guillyn), is thus noticed in the *Dictionnaire Universel, Critique et Bibliographique*, of 1811:

"CLAUDE MARIN SAUGRAIN—This gentleman, preserver of the library of the Arsenal, was attached to it for nineteen years and never ceased during all that time to give it all his care. To him is due the pres-

ervation of this superb library, the finest and largest in France, next to the Imperial Library. Descended from a most ancient and notable family of booksellers, which supplied a bookseller to Henry IV, King of



THE SAUGRAIN MEMORIAL TABLET.

[Photographed from the Tablet in Paris.]

Navarre, Saugrain was himself a bookseller, but retired from trade and was appointed keeper of the fine library of M. de Papimy, which the Count d'Artois had just acquired. To enlarge still more this famous

collection, he procured the purchase in its entirety of the second part of the famous library of the Duke de la Valliere. In the first storms of the Revolution, on the day of the taking of the Bastile, the mob learned that there was in the Arsenal a library belonging to the Count d'Artois. Thither they went immediately to destroy it. Saugrain, alone in the library, notwithstanding the disturbance which such a tumult occasioned, had the presence of mind to order the porter to change livery and put on that of the King. When after so doing, the porter opened the door, the people withdrew, believing themselves mistaken. It was to this happy idea that the preservation entire of this precious collection is due. Several times afterwards during the Revolutionary period, he had the courage to resist orders from the government for the dismemberment of the second library of France for the purpose of dividing it among new establishments. This firmness, which in that epoch, frequently endangered his life, was united in Saugrain with a sweet and amiable character which attached to him all who knew him. He died in Paris in 1806 at the age of 70, leaving a reputation for honor and probity which has never been disputed."

As the booksellers of the Eighteenth Century were not only publishers of books, but often the employers of the men who wrote them, the atmosphere of the Saugrain family, whether as librarians or booksellers, was that of the world of books during a period when it was dominated, as it had not been before and as it has scarcely been since, by books of "philosophy," including everything which is now classified as scientific. Before the discoveries of Lavoisier, however, the only interest equalling that in political philosophy and in the researches stimulated by Franklin, was in natural history as it had been stimulated by Buffon and his school. While it was at its height, it was natural that its interest in America, as the largest field for possible new discoveries, should also be greatest. While Saugrain was still in Paris, the Spanish Governor at New Orleans forwarded to St. Louis a letter making an earnest request for specimens of the American "mandrake" for one of the cabinets of natural history it had become the fashion of Europe to collect at that time. The special value set on the "mandrake" during the Middle Ages, when science was confused with magic, seemed to have survived in the botany of the period as part of the tendency to mysticism which showed itself in spite of the work of the "practical philosophers," represented by Franklin and by the makers of the French Encyclopedia.

During the reign of Charles III of Spain, the scientific spirit of investigation represented in such men as the Count d'Aranda and the Count

d'Ulloa, who were in close touch with the philosophers of France, was stronger than it shows itself to be in the Spain of the present. It was under Spanish auspices that Doctor Saugrain made his first visit to America. We know of it only by scant details appearing in notices of the expedition to the Ohio which followed it. In his twenty-first year, he went to Spanish America to "make an investigation of minerals." Four years later, in 1787, when he reappears in Paris, it is in connection with the organization of an expedition by the botanist Pique to visit the Ohio River territory and study its natural history. The date of his arrival in the United States is fixed approximately by the fact that he brought a letter of introduction to Franklin from M. de Veillard of Paris, which Franklin acknowledges February 17, 1788.

From the journal of this expedition kept by Doctor Saugrain himself, it is shown to have been filled with danger as well as with the difficulties of navigating a stream like the Ohio in open boats.

"Pique and Raguet* (French); Pierce (American), and myself," he writes, "set out from Pittsburgh, March 19 (1788), stopping at Wheeling, at Muskingum, and at Limestone, a place where a fine town should be built. In short, we continued our journey without accident until the 24th, always admiring both banks of the Ohio, which in places are magnificent. On the 24th, however, when we were opposite the Big Miami, the wind having thrown us a little towards the Pennsylvania side of the river, M. Pique, as we were preparing to get rather more out of the current, called my attention to a flatboat which was upon the same bank. Alas, he was far from thinking that this boat would cause his death. As we were getting away from the shore to gain the stream, we heard ourselves called by Indians, who, at the same time, fired upon us. At the first shot, they killed my mare, and in her death-struggles the poor creature pushed against the horse of M. Pique which gave me a kick in the abdomen. It threw me flat, and with another, the animal would certainly have killed me had it struck me fairly. It only grazed me, however, and as I had fallen prone, the Indians thought they had certainly killed me. I suppose that they had fired nearly twenty shots from the bank. Except M. Pique, who, as I thought, had been only grazed, since he did not complain of the effects of the wound, none of us were struck. To get beyond the range of the bullets, all four of us took to the oars. The Indians then boarded the flatboat in front of which they had arranged planking pierced with loop holes through which they could fire without exposing themselves. I left my oar to see if the guns were in order. Of the three we

* These names appear also as "Piquet" and "Raquet."

had, I found two loaded. One of them was mine, and the other, the carbine, which belonged to M. Raguet. I hastened to load the third as well as to look after the priming of the pistols. During this time, the Indians advanced upon us and as they did not fire, it was proposed, I do not know by whom, that we should raise a handkerchief as a sign of peace, judging it better to be prisoners among the Indians than to be killed. They approached us more and more nearly, making similar signs of peace, but when they reached us and one of them passed over to our boat, I saw that the unfortunate wretch had a knife in his hand, drawn, I argued as I think with reason, with no good intentions. I fired on him at once with my pistol, sending its two balls into his body. Then M. Raguet fired upon them in turn with his carbine and I also fired again. Raguet fired three or four shots, but unfortunately, in his haste at the beginning, he had put in the ball before the powder. This delayed his subsequent firing. When he had reloaded and wished to fire, finding that he had his view obstructed, he put his arm outside the protection of the boat in aiming and had it at once broken by a shot. I also, in putting my hand outside to hold my gun in taking aim, had a finger of my left hand broken in the same way. At the first shots fired by the Indians from their boat, our American companion sprang overboard and swam to land. This was greatly to our disadvantage, for the Indians who otherwise might have left us, increased their firing as a result of it. I think I fired once more after my finger was broken. M. Raguet was disabled by his broken arm. As for M. Pique, he was unwilling to fire. Thinking, I suppose, that the Indians would do him no harm if they took him prisoner, instead of aiding us in our defence, he followed the example of Pierce. As only M. Raguet and myself were left, both of us threw ourselves into the water. As he had his arm broken and could not swim, I believe that he was drowned. He preferred that death, he told me, to being scalped by the Indians. I had not yet reached the bank when I saw M. Pique and two Indians awaiting me. The moment I touched the land, the Indians seized me and bound my hands with the thongs they used in supporting their blankets. They had no sooner made an end of tying me than I saw one of the two who had held me approach M. Pique, throw him to the ground and after opening his coat and shirt, stab him four times, scalping him immediately afterwards. After this, he put the scalp away in a pocket book M. Pique had in his pocket. I leave you to imagine, my friends, what this spectacle was to me! As you may well suppose, I expected the same fate for myself; but instead of killing me, they made me run to overtake our boat, which, though headed for the shore, had drifted nearly

a quarter of a mile from the place at which we left it. When we came opposite the boat, one of the two attempted to take me by the hair to drag me, as the boat could not be brought into the shore because of the trees (in the overflow, probably). As for me, a cruel fear seized me. Seeing that he had not killed me and wished to cross the Ohio thus, I believed that he wished to burn me on the other side. I made a violent effort, broke the thong which bound me, and throwing myself into the water, swam with such force that the Indian did not venture to follow me. He did well, for it was my intention, if they did so, to seize one of them and drown with him. Those of the party who had thrown themselves from their boat, swimming in order to capture us on shore, now got into our boat and began to cross the Ohio. As for me, I held to a tree near the bank, with my arms about it. The Indians fired from the boat and wounded me in the neck. When I saw that their boat had reached the middle of the river, I regained the shore. When I went to see if M. Pique had expired, I found Mr. Pierce, who had concealed himself in a ravine. Together we went to M. Pique, finding him dead."

This tragedy defeated the object of the expedition. Wounded as he was and without food, Doctor Saugrain made his way down the river, saving himself from further attack from Indians by keeping to the woods with his companion until they were rescued by a party of boatmen, who took them to the Falls of the Ohio, the present City of Louisville, which they reached on March 29th. After his wounds had healed, he returned to Pittsburgh on a flatboat, and reaching Philadelphia, he records, under date of July 20, 1788, as the last entry in his journal, these particulars of his reception by Franklin, who was then 82 years of age:

"At last I am in Philadelphia, and the first thing I did was to repair to Doctor Franklin's. I found him ill. He had not left his bed for twenty-three days. He arose to receive me, however. He shows me much attention and has greatly commiserated me. He has offered me all possible help. Finding himself much better, he has invited me to dine to-morrow at his house."

The Nini medallion portrait of Franklin, which he presented to Doctor Saugrain, is still in the possession of the family, valued as a souvenir of an association with the veteran philosopher to which the younger man looked back as one of the sources of his inspiration in his own subsequent attempts to extend in the Mississippi Valley the spirit of scientific research which Franklin, at a time when his own country was not prepared for it, had so greatly quickened in Europe.

It was after returning to Paris from Philadelphia, that Doctor Saugrain left France finally for America as one of the founders of Gallipolis, Ohio, a French elysium in the wilderness, celebrated in early American history because of the disappointments and disillusionment of its founders, drawn there from France by the brilliant prospectuses of the speculative Americans who had organized the Ohio and the Scioto land companies for the purpose of selling Western lands to Frenchmen whom the Revolutionary troubles of Paris made more disposed to emigrate. Not a few of those thus attracted belonged to the upper classes, and most of the settlers were not only deceived by the promises of the speculators, but were in any event unfitted for the life of a new country. It is not probable, however, that after his previous experience on the Ohio, Doctor Saugrain was thus deceived. His passport, which is still preserved, shows that on the 27th of April, 1790, he received permission, in the King's name, to leave France for America, accompanied by his servant. When he reached Gallipolis with the other colonists he found that it was not only a wilderness, but that the wilderness was filled with Indians, at that time in a state of active hostility to settlers. An incident of his prior visit, however, had been an intention to investigate the country along the Ohio as a suitable place for future French settlements, and he had then learned the possible attitude of the Indians towards intending colonists. It is probable that, having this full knowledge of conditions, he had at this time made up his mind, notwithstanding to remain in America. He did remain in any event, sharing the hardships of the colonists at Gallipolis and becoming noted, not only among them, but throughout the American settlements of Kentucky and Ohio, for his scientific knowledge.

In a sketch of his life, written by an acquaintance and published in the Cincinnati *Saturday Evening Chronicle* of July 14, 1827, seven years after his death, appears this reference to his activities in Gallipolis: "Dr. Saugrain acquired a great reputation among the inhabitants of Kenawha by his success in inoculation for the small-pox, and many flocked to Gallipolis to be cured. He had, besides, many other resources. He had brought with him a quantity of phosphorus, glass tubes and quick-silver. With the first, he made phosphoric lights, which he sold to the hunters. With the other articles, he made aerometers and barometers. He blew his glass in the winter; a friend graduated the instruments. All these objects were disposed of by wholesale for Kentucky and elsewhere or at retail to the traders and others who came from different parts to visit the colony. Saugrain married at Gallipolis a very young and ami-

able member of a family which had come with him. He always shared his means with the rest."

This young lady was Miss Rosalie Genevieve Michaut. The date of the marriage has been given as "February 17, 1763," a mistake similar to that by which, in Brackenridge's account of his visit to the family at Gallipolis, the Doctor's height is made to appear "4 feet, 6 inches," instead of five feet and six inches, as it appears in his family traditions.

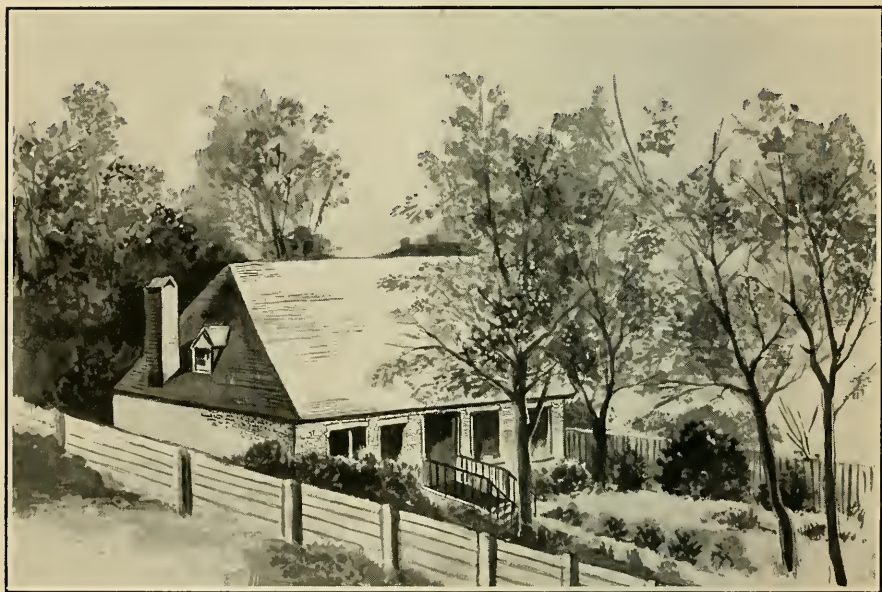
As it was part of the education planned for Brackenridge by his father that he should become a complete master of French by learning to speak it in childhood as a native tongue, he was sent as a child to Gallipolis and St. Genevieve. At Gallipolis he was for some time an inmate of Doctor Saugrain's house.

In 1795, when Brackenridge made his acquaintance, Doctor Saugrain had been married recently, his family then consisting of his wife alone, as their first child, a daughter named "Rosalie Genevieve" for her mother, was not born until 1797, during the subsequent residence of the family at Lexington, Ky. "The Doctor had a small apartment which contained his chemical apparatus," writes Brackenridge in his "Recollections of the West." "I used to sit by him as often as I could, watching the curious operations of his blow pipe and crucible. I loved the cheerful little man, and he became very fond of me in turn. Many of my countrymen used to come and stare at his doings, which they were half inclined to think had too near a resemblance to the black art."

It appears that Doctor Saugrain's residence at Gallipolis ended soon after the visit of Brackenridge. He went to Kentucky with his family under circumstances thus detailed in the Cincinnati memoir of 1827: "As for Doctor Saugrain, he did not remain long in Gallipolis. A society in Kentucky, owning iron works, sent for him to enlighten them in making good bar iron which they could not produce. They flattered him and he was easily persuaded to come and impart some of his knowledge to the society. He removed to Lexington with his family and that of his wife. On his arrival he was received with that warmth of hospitality which has always distinguished Kentucky. There he remained about six years,, after which, having a friend in St. Louis, he was again prevailed upon to move and was created physician of the garrison at that place, a sort of sinecure in itself, but important to him from a professional point of view."

The date of his removal to St. Louis is usually given as 1798, and it is evident that the dates fixing the length of his residence in Kentucky as "about six years," do not approximate exactness as the visit of Brack-

enridge to his family in Gallipolis was in 1795 and the latest date fixed for his removal to St. Louis as post physician is 1800. It is possible, however, that he visited the town before his removal to it. After his removal and during the whole of his subsequent life, he was noted, not only as a physician, but for the work as a chemist and for the experiments in electricity to which he devoted himself. He had one of the very few electric batteries then in the Mississippi Valley. In addition to his experiments with electricity, he seems to have progressed beyond his experiments with phosphorus lights, to re-inforce the experiments of European inventors who were then attempting to perfect friction matches. It is said that he



THE SAUGRAIN RESIDENCE IN ST. LOUIS.

[From a painting in possession of the family.]

supplied thermometers and other scientific apparatus as well as the medicines to the Lewis and Clark Expedition. It is unfortunate in one sense, that contemporaneous public interest in his electrical experiments was so great, since in the fragmentary records of the time, it is always made prominent at the expense of his researches in chemistry.

When he devoted himself to chemistry in St. Louis in the first decade of the Nineteenth Century, it was under circumstances suggested by the fact that after building his stone residence on the block bounded by

Second and Third, Mulberry (now Gratiot) and Lombard Streets, he found it advisable to enclose it with a strong stone wall for security against the vagrant Indians who then thronged the streets of the post, becoming sometimes intoxicated and unmanageable. His eldest daughter, who lived in St. Louis until late in the Nineteenth Century, felt that she had never wholly recovered from the shock of seeing an Indian remove the scalp of a victim, killed near the family residence. Working in his laboratory under such conditions, the St. Louis pioneer chemist might well say as he said to one of his daughters who assisted him in his experiments: "We are working in the dark, my child. I only know enough to know that I know nothing."

Even after the great results which have since followed the labor of the pioneers in chemical experiment, the experimental chemist of the present must still define his actual knowledge thus.

In spite of his devotion to science, Doctor Saugrain's work as a physician provided for a family of six children to whom and his widow, who survived many years after his death in 1820, he left a considerable landed estate, which, though it increased greatly in value with the growth of the town, remained always far less valuable than the memory of his unremunerated labors as the pioneer in the experimental science of the Mississippi Valley. His descendants, who still reside in the city, are through the marriages of his daughters, Rosalie Genevieve, on June 10, 1816, to the late Henry Von Phul; Eliza, married June 10, 1817, to Captain James Kennerly of the United States Army; Henrietta Theresa, married June 10, 1827, to Major Thomas Noel of the United States Army, and Eugenia, married August 21, 1834, to John Reel. Of his two sons, Frederick and Alphonse, the former born in St. Louis in 1806, only three years after the American purchase of Louisiana territory, outlived the century and was still living in 1903 at the hundredth anniversary of "the Purchase."

While the West, as Doctor Saugrain worked in it, had no learned societies to appreciate, understand and record the results of such experiments as his, merged as they have been since in the lasting results of other experimenters working under more favorable conditions, the spirit in which he worked has so recorded itself that his life makes more intelligible the history of his own generation and of those which have followed it. He brought the light of the Eighteenth Century to the Mississippi Valley and it has grown steadily in radiance until the Twentieth. "Stat nominis umbra!" But the impulses which animated him did not fail him, nor have they failed after him.

APPENDIX.

The following, dated from 64 Rue des Martyrs, Paris, June 10, 1902, was received in response to a letter addressed to the United States Consul-General at Paris, making inquiries concerning the Saugrain family in France:

Being an author and a bibliophile, the U. S. Consul-General often refers literary questions to me, and has shown me your note of 27th May. I find in the catalogue of the National Library, and by reference to bibliographical works, that there are eight books by writers of the name of Saugrain, viz., by CL. MARIN SAUGRAIN:

- (1) Nouveau dénombrement du royaume par généralités, elections, paroisses, etc. *Paris. Saugrain l'aîné, 1720. 2 vols. in one, quarto. Also edition in 1755.*
- (2) Dictionnaire universel de la France, ancienne et moderne. 3 vols. folio, 1726.
- (3) Code de la librairie et imprimerie de Paris, etc., etc. Paris, 1744. 12mo.
- (4) Code des Chasses. Paris, 1713, 1720, 1734, 1753, 1765. 2 vols., 12mo.
- (5) Les Curiosités de Paris, de Versailles, de Marly, Vincennes, St. Cloud. Paris, Saugrain, 1716. 12mo. Nouvelle edition, augmentée (par Pigniol de la Force et Saugrain). Paris, 1723. 2 vols., 12mo.
- (6) Nouveau voyage de France, géographique, historique, et curieux. Paris, M. L. R. *Paris, Saugrain, 1718, 1730. 12mo.*
- (7) GUILLAUME SAUGRAIN. La Marechaussée de France ou Recueil des ordonnances, etc. *Paris, G. Saugrain, 1697. Suite de la Marechaussée de France, Paris, Vve. Saugrain, 1717. Le tout en 2 vols., 4to.*
- (8) Généalogie de la famille des Saugrain, librairies, depuis 1518, jusqu'à present, mise en ordre, imprimée et présentée par Joseph Saugrain, le 1er Janvier, 1736.

This last, I judge from the newspaper article, you possess. The copy in the Paris National Library is marked "Avec continuation *m. s.* et quelques additions de la main de M. Charles Magnin." I consulted it and found the names of about 40 members of the family added in writing. By the way, the name is not extinct in France, unless "M. Saugrain, avocat Cour d'Appel, 15 Rue de Tournon," has died within the last year or two without children. * * *

Yours very truly,

ROBERT B. DOUGLAS.

To Benj. Von Phul, St. Louis, Mo.

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